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ABSTRACT

A study analyzed postings over a week-long period to two electronic discussion lists to position them as communication forms and to assess their potential value to journalism educators, students and researchers. The lists--"Journet" and "Stumedia"-- were examined using both quantitative and qualitative techniques. Results indicated that the discussion lists have the scope to offer a level of currency in the international scholarly community well beyond the limits of other information sources for journalism educators and students such as newsletters, conferences and journals which might be weeks or even years behind in the intellectual debate or technological development. Using a discussion list or direct email to a target member, an educator or student can glean first-hand expert information within hours, perhaps even minutes. Other advantages of participation on such lists include networking and scholarly cooperation, knowledge acquisition, a sense of communion, and an opportunity to keep pace with innovation. Disadvantages are the sheer bulk of correspondence, low participation rates, maleness, "US-centricity" and the preponderance of "junk mail." Findings suggest that this field of data is ripe for research in a variety of ways. (Contains 19 references and 3 tables of data.) (Author/RS)

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Look Who's Talking: A Pilot Study of the Use of Discussion Lists by Journalism Educators and Students

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Brief abstract
This paper analyses postings over a week-long period to two electronic discussion lists to position them as communication forms and to assess their potential value to journalism educators, students and researchers. The lists — Journet and Stumedia — feature advantages including networking and scholarly co-operation, knowledge acquisition, a sense of communion, and an opportunity to keep pace with innovation. Disadvantages are the sheer bulk of correspondence, low participation rates, maleness, US-centricity and the preponderance of "junk mail".

Extended abstract
This paper analyses postings over a week-long period to two electronic discussion lists to position them as communication forms and to assess their potential value to journalism educators, students and researchers. It sets out to define the characteristics of two lists by analysing some of their content over a short period. (As a postscript, it assesses the suitability of data in such lists for analysis in a larger project gauging journalists' and educators views on the Internet's impact upon journalism.) The lists — Journet and Stumedia — are examined using both quantitative and qualitative techniques. The author concludes that discussion lists have the scope to offer a level of currency in the international scholarly community well beyond the limits of other information sources for journalism educators and students such as newsletters, conferences and journals which might be weeks or even years behind in the intellectual debate or technological development. Using a discussion list or direct email to a target member, an educator or student can glean first-hand expert information within hours, perhaps even minutes. Other advantages of participation on such lists include networking and scholarly co-operation, knowledge acquisition, a sense of communion, and an opportunity to keep pace with innovation. Disadvantages are the sheer bulk of correspondence, low participation rates, maleness, US-centricity and the preponderance of "junk mail". The study suggests this is a field of data ripe for research in a variety of ways.

Look Who's Talking: A Pilot Study of the Use of Discussion Lists by Journalism Educators and Students

Computer-mediated communication, on-line news services, electronic mail and file transfer protocol offer countless opportunities for researching, reporting, publishing, conferencing, teaching and learning (Smith, 1993, Spring; Smith, 1994, Winter). Yet important questions about the application of these technologies remain unanswered. Much of the debate to date has focussed on the virtual and the imaginable at the expense of the concrete and the tangible. This paper attempts to address that imbalance by making a case study of just one manifestation of the Internet: the electronic discussion list. It does so by analysing the discussion during a single week on two such lists — Stumedia and Journet. The immediate purpose of the paper — the purpose the bulk of the discussion addresses — is to define the characteristics of these two lists by analysing some of their content. A second purpose — addressed as a postscript to the paper — is to assess the suitability of data in such lists for analysis in a larger project gauging journalists' and educators views on the Internet's impact upon journalism.

Electronic discussion lists (sometimes known as bulletin boards, electronic mailing lists, listservs, and collaborative mass media) are a subset of the expanding realm of computer-mediated communication (CMC) accessible through the Internet. Throughout the world thousands of journalists and journalism educators are communicating over the Internet as participants in such electronic discussion groups. Six main listservs exist — CARR-L (Computer Aided Research and Reporting List), Journal-net (a discussion list for journalists using computers for research), Online-news (a list for those publishing electronic newspapers), SPJ-net (that sponsored by the Society of Professional Journalists), Stumedia (a discussion list for journalism students and student editors) and Journet (a discussion list for journalism educators). These have spawned several smaller discussion groups representing regional or sectional interests.[1] This pilot study looks at discussions on Stumedia and Journet over a single week.

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[1]. Examples include JEANet, a discussion list for Australian and New Zealand journalism educators and Computer-assisted Reporting Caucus (restricted to members of the Canadian Assn. of Journalists).

Discussion lists are defined as "an interactive computer-based communication system organised around the interests of the users" (Ogan, 1993: 177). Several thousand exist in a variety of forms, but the kind under examination in this study serve as platforms for exchanging information and ideas among scholars. Gilster (1993: 192) describes their operation:

> A centralised structure is imposed over the circulating material, usually with a single person supervising the entire operation. Instead of bouncing and multiplying across the network, messages flow to the person in charge, who then sees that the discussion is moderated, or at least that each person's contributions become available for all to read. Best of all, this material is then delivered to your electronic mailbox, in the form of a series of messages that keep coming in until you resign from the group in question.

Communication researchers have grappled with categorisation of the Internet. December (1996: 17) distinguishes the Internet from other networks on the international computer "Matrix" (Quarterman, 1990) according to the set of protocols which define its rules for data exchange. Is it a mass medium? Morris and Ogan (1996: 42) suggest its chameleon-like qualities force a rethinking of the very definition "mass medium": "... (W)hat becomes clear is that neither *mass* nor *medium* can be precisely defined for all situations, but instead must be continually rearticulated depending on the situation." The key point of difference between electronic discussion lists and the traditional mass media is that, while the latter involve one-to-many dissemination of content, discussion lists involve a many-to-many communication relationship (Rafaeli and LaRose, 1993: 291). Electronic discussion lists allow for ongoing discourse between subscribers with a common interest, effectively creating what Rheingold (1994: 5) calls a "virtual community", which he defines as "social aggregations that emerge from the Net when enough people carry on those public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace".

Rheingold (1994: 12) proposes that CMC has the potential to change people's lives on three levels: the personal, the social and the political. He suggests that at the personal level individual perceptions, thoughts and personalities can be changed through the use of the medium. At the social level,

Rheingold adopts a schema for determining whether a human group interaction can be called a "community". Such a community must demonstrate the following "collective goods": social network capital, knowledge capital and communion. The third level for potential change to people's lives is at the political level, at which Rheingold sees the potential for CMC to revitalise the notion of citizen-based democracy. The levels, and the schema for defining community, will be revisited as part of the analysis of the two discussion lists being examined here.

Scholars have attempted to fathom the communication identity of computer bulletin board systems, or BBSs (an umbrella term encompassing the discussion lists which are the subject of this study). Several, such as Cunningham and Finn (1996), have noted that Internet communication shifts the relationship between the producer and receiver of a message. They give the example of the multi-point chat format where traditional theories of audience break down because the participant shifts between the roles of audience member and content creator. The same applies to discussion lists. Ogan (1993, Spring), found that the computer bulletin board may indeed be a kind of hybrid communication medium. Ogan analysed all messages filed to the Turkish Electronic Mail List (TEL) during one month of the Gulf War. She used a classification schema developed by Ball-Rokeach and Reardon (1988) to position the electronic bulletin board as a form of telelogic communication, containing characteristics of both mass and personal communication. She concluded that bulletin board communication was unique in that it:

- Connected people in a new social community defined around the interests of its members and not their physical proximity.
- Provided a specialised medium to serve the functions of that community.
- Provided a new arena for group decision making and mobilisation.
- Allowed for other new uses not provided by traditional media, including the development of personalised data bases for participants.
- Did not follow traditional means of confirming participant status. (That is, face to face interpersonal social cues were lacking.) (Ogan, 1993: 192-3).

Poster (1994: 83) agrees with the latter point, noting that in CMC people "connect with strangers without much of the social baggage that divides and alienates". This facilitates conversations which might have been avoided if participants had more visual cues about each other's age, gender, ethnicity or social status. This lack of face-to-face social cues has precipitated attempts to define codes of

behaviour or protocols in CMC, some reflecting the norms of traditional interpersonal communication and others addressing peculiarities of this communication form. These are the rules of on-line etiquette ("Netiquette"). Tennant, Ober and Lipow (1994: 45) advise new users ("newbies") to be patient and to avoid the temptation to send trivial or poorly formulated messages to lists and to be particularly careful with attempts at humour, which can be misunderstood. They warn users off the practice of "flaming" — sending critical or abusive messages across the Net. Gilster (1993: 195) lists other protocols.

This article draws upon the above research to quantify and analyse the two selected journalism discussion lists with special attention to their attributes of community and their potential value to journalism educators and students. It is an exploratory study, mainly intended to gauge the potential for further research in the area; particularly to assess the suitability of conversations on such lists as data for a larger qualitative study.

Method

All postings to the discussion lists Journet and Stumedia for the first week of November, 1994, were downloaded and saved. These lists were selected from several available in the field because they were among the most general and popular used by journalism faculty and students. There were clear risks attached to the selection of a single week of postings for analysis. Future studies might take up a larger time frame to avoid such risks. At the beginning of November students and faculty may be occupied with mid-term exams and projects, for example, but different risks are attached to other single weeks during the academic year. Clearly, a follow-up project should remedy this. (Nevertheless, 46,840 words of text were analysed in discussions in this single week, stretching the resources available to this pilot project and indicating the risks were more to do with the timing of the collection than with the quantity of data.)

Basic data about the discussions was quantified. The volume of correspondence was measured and absolute and relative frequencies were calculated for key indicators, including participation levels, roles as originators of messages or respondents, and genders and nationalities of participants. The content analysis involved the assignation of terms to the primary topic discussed in each posting and the communicative purpose of each item. Their frequencies were also recorded. The qualitative element

involved a critical analysis of the messages, exploring issues foreshadowed in the literature review. Central to the task was the assessment of the usefulness of CMC as a means of communication for journalism educators and students. (The ethical issues regarding the quotation of individuals' postings to discussion lists were considered carefully. In the end, it was decided that quoting such postings was not significantly different from quoting passages of letters to the editor of a publication: the comments have been posted into the public domain by their mailing to a discussion list. Nevertheless, it is recognised that the context in which they are being quoted is quite different from that into which they were originally published. Readers should bear this contextual shift in mind when reading excerpts from those postings in this paper. The whole issue of the ethics of usage of Internet material is worthy of much deeper exploration and discussion.)

The researcher decided not to participate in the lists being analysed because the researcher would not normally subscribe to both of them and be privy to the discussions taking place. Rather than complicate the analysis with the researcher's own contributions, the decision was taken not to participate for the data collection period. (Some might argue with this, of course. The researcher's "withdrawal" from the list he normally subscribes to — Journet — could be portrayed as a corruption of the data in that the researcher's own routine contributions represent a valid role in their own right, worthy of analysis, and their absence may well deprive the project of whole strings of valuable data.) Nevertheless, having weighed the arguments for and against participation, the researcher decided not to. The role of non-participant observer sits well with the research questions and the theoretical framework.

Results and discussion

a. Quantitative analysis

Some of the decisions about which of the data should be subject to simple frequency analysis were relatively straightforward, informed in part by studies by Ogan (1993, Spring), Garramone, Harris and Anderson (1986) and Swift (1989). These included tabulations of the numbers of messages in each list over the period, the level of participation of subscribers, the length of messages, the genders and nationalities of participants and whether the messages were original postings or replies to other postings. Separate figures for Journet and Stumedia are given only where they vary markedly. Each of the discussion lists boasts a relatively indistinct and broad range of interests. Journet is billed in Okerson (1994: 365) as containing "topics of interest to journalists and journalism educators", while Stumedia is listed as containing "All issues of interest to student journalists. Students involved in journalism in newspaper, yearbook, television, radio and other forms of media are encouraged to join."

During the week of data collection a total of 187 messages were posted to the two discussion lists — 84 on Journet and 103 on Stumedia. The discussion amounted to 46,840 words, with the average length of a message being 248 words (excluding addressing coding, but including excerpts of previous messages to which the author have may be replying.) Of the total 187 messages, 62 (33%) were original postings, while 125 (67%) were replies to other participants' messages. The fact that two thirds of the postings were responses reflects the degree of interactivity of the medium and at first seems to confirm Rafaeli and LaRose's (1993: 291) designation of CMC as a "many-to-many" communication medium. However, it is worth noting that the messages were contributed by only 110 individuals, representing just 9.1 per cent of the total 1202 subscribers to the lists. Just 59 (6.8%) of Journet's 872 subscribers participated during the week, while 51 (15.5%) of Stumedia's 330 subscribers took part over the period. This was a considerably lower participation rate than the 31% recorded by Ogan (1993), although her study was over a one month period at a particularly volatile time. Nevertheless, other studies of bulletin board users have recorded even higher participation rates (Garramone, Harris and Anderson, 1986; Swift, 1989). In the light of this, Rafaeli and LaRose's (1993: 291) designation of CMC as a "many-to-many" communication medium might be redefined as "few-to-many". Follow-up studies might seek to explain this relatively low participation level, which renders more than 90% of

the users of the two groups "lurkers" — subscribers who observe debate rather than contribute to it. (Again, the comparison can be drawn here with letters to the editor of print publication: the fact that very few readers bother to write a letter to the editor does not necessarily diminish the importance of letters to the publication and its broader readership.)

The low participation level was reinforced by an analysis of the participation rates of discussants. Table 1 shows that only four of the 110 participants contributed more than five messages, while 77 (70%) contributed only one message during the week. Only one of the four frequent contributors could not be considered a "discussant" per se, in that he was simply posting announcements about industrial award negotiations. The findings compare with Ogan's (1993, Spring) analysis of the Turkish Electronic Mail List which averaged 5.8 messages per contributor over a one month period. Morris and Ogan (1996: 45) suggest a bulletin board must have depth and variety in its content to be viable.

> If the audience who also serve as the source of information for the BBS is too small, the bulletin board cannot survive for lack, of content. A much larger *critical mass* will be needed for such a group to maintain itself — perhaps as many as 100 or more.

Both lists seem to meet this requirement, though only in membership and thus potential audience rather than in actual participation levels.

A related consideration in determining the functionality of the medium is the membership and participation as a proportion of the total population of journalism educators and students. Any medium requires a critical mass of adopters before it can be categorised as a mass medium. Valente (cited in Morris and Ogan, 1996: 45) positions this critical mass at the point where 10 to 20 per cent of the population have adopted the medium. No precise figures exist on the number of journalism educators and students in the countries with access to electronic mail and the capability of subscribing to such discussion lists, but they would certainly number tens of thousands, putting the membership of these lists below Valente's critical mass threshold. (Electronic mail would have a broader usage, and may be classified as a mass medium, but for the fact that it is mainly used for one-to-one or one-to-few communication.)

Also consistent with the findings of others (Ogan, 1993, Spring; Garramone et al., 1986; Rafaeli, 1986; Swift, 1989) was the domination of male and American discussants. Gender was not always

identifiable, but at least 133 of the messages (71%) were contributed by men. Americans were by far the most prevalent contributors, with 181 (97%) of the messages originating from the United States, four (2.1%) coming from Canada and only a single contribution each from Britain and Australia. This was despite several non-American addresses featuring among the subscribers' lists. This phenomenon adds weight to the assertions of commentators such as Poster (1994: 76) who fears the cultural and political consequences of an Internet dominated by US users. Nevertheless, other factors may need to be considered here, including the level of uptake of Internet technology beyond the US, the propensity of users in other regions to start their own lists, the origins and purposes of the particular lists under examination and the peculiarities of this particular one week time frame. This deserves detailed longitudinal analysis over a longer period.

Table 1: Messages on the Journet and Stumedia discussion lists (November 1-7, 1994).

No. of messages	Contributors (Journet)	Contributors (Stumedia)	Total contributors
1	47	30	77
2	6	9	15
3	3	4	7
4	1	4	5
5	1	1	2
6	-	2	2
7	1	-	1
10	-	1	1
Total	**59**	**51**	**110**

M = 1.7 messages per contributor. Mode = 1 message per contributor.

Each of the 187 messages was then subjected to two distinct categorisation processes: one reflecting the topic being discussed and the other addressing the communicative purpose of the posting. As can be seen from Table 2, the data presented five general topic areas under discussion, classified as education, journalism, technology, social and other. Each of these featured a number of sub-topics (18 in all) which indicated a further refinement of the topic being discussed. Postings were only allocated a single categorisation in this process, necessitating the coder to decide which was the dominant topic in each item. Clearly, these categorisations reflect this author's own interests and biases. Like any content analysis, the process of categorisation can be approached in a number of ways. Researchers with different purposes or agendas will categorise the data in different ways.

Table 2: Messages coded for discussion topic

Topic	Journet	Stumedia	Total
Education (total)	**25**	**1**	**26**
- Courses (comparison)	3	1	4
- Curriculum	12	-	4
- Pedagogical approaches	10	-	10
Journalism (total)	**19**	**49**	**68**
- Practice (including ethics)	10	7	17
- Story research	-	3	3
- Story idea	-	12	12
- Industrial issues	9	-	9
- News values	-	7	7
- Editors' issues (staffing etc)	-	20	20
Technological (total)	**32**	**26**	**58**
- Equipment	18	4	22
- Net Administration	3	1	4
- Internet	8	4	12
- Netiquette	3	17	20
Social (total)	**1**	**13**	**14**
- Personal / community	-	5	5
- Convention planning	1	8	9
Other (total)	**7**	**14**	**21**
- Employment issues	1	9	10
- Positions vacant	6	3	9
- Politics	-	2	2
Total	**84**	**103**	**187**

A note of caution should be issued on the interpretation of such results. Since they only represent a single week of discussion on each list, they are easily skewed by the course of that week's debate. A single topic might never have been discussed on the list previously and might never be discussed again, but in this particular week might well have been the focus of debate. Other factors may impact upon the topics. For example, it might seem that Journet discussants have a strong interest in industrial issues, while Stumedia discussants have little interest in such issues. In fact, the nine postings listed under the topic on the Journet list were simply bulletins posted by the Wire Service Guild about their negotiations with Associated Press which generated no discussion.

More than one quarter of the discussion on the Journet list during the period related to educational issues. Despite their separate topic classifications, the distinction between curriculum and pedagogical approaches is considerably blurred, with most discussion involving a combination of both. What is more noteworthy than Journet's discussion of educational issues is Stumedia's neglect of them. This might be explained partly by the fact that many of the discussants on that list seemed to be students who were practising student journalism, but not necessarily studying it. Nevertheless, one might expect tertiary students of whatever discipline to take an interest in their institutions and their educational practices.

Stumedia discussants were particularly vocal on journalism topics, especially those related to the actual production of their publications. Almost half of the Stumedia discussion fell into the journalism category. Surprisingly, the Journet discussion of journalism was limited. The 10 items about the practice of journalism represented less than one eighth of the overall discussion on the list during the period.

The most popular discussion topic on Journet was technology, dominated by debate over the most suitable ways of equipping journalism teaching labs and of using the Internet for research and publishing purposes. Technology was also an important element of the Stumedia discussion. The major issue discussed there was "Netiquette", which took up a significant 17 or the 103 Stumedia postings in the week, indicating the extent to which the courtesies of Internet usage can occupy time and space on such a list.

Similarly, 13 of Stumedia's postings were categorised as "social" — items of a personal or community nature or procedural notices about the Associated Collegiate Press convention many of the student subscribers were attending in New Orleans the following week. The convention-related postings add fuel to the criticism of the US-centricism of the list, with discussants paying little credence to the fact that such a regionally based convention may be of little interest to international subscribers.

Noteworthy about the "other" category in Table 2 was the ongoing use of the lists to discuss employment prospects and to post job advertisements. The employment issue surfaced on Stumedia with a lively exchange over the relative value in the job market of newspaper cuttings files and subject grades. The nine postings of non-paid position vacant advertisements indicates a usage of discussion lists as a "one-to-many" as distinct from "many-to-many" form of communication. For such advertisers, Journet becomes a convenient and inexpensive way of directly marketing a job ad to 872 target readers internationally.

The second strand to the categorisation process was to adjudge the communicative purpose of each posting to the lists. Table 3 shows that each posting was designated as having one of seven communicative purposes: query, help given, banter, flame, announcement, discussion or Net administration.

Table 3: Messages coded for communicative purpose

Communicative purpose	Journet	Stumedia	Total
Query	19	8	27
Help Given	15	9	24
Banter	1	6	7
Flame	—	2	2
Announcement	15	19	34
Discussion	31	59	90
Net Administration	3	—	3
Total	**84**	**103**	**187**

Almost half of the postings were categorised as "discussion" — displaying the characteristics of either generating or taking part in debate on an issue. This is purported to be the primary purpose of such a "discussion list". Gilster (1993: 194) calls it a "platform for exchanging ideas". Yet half the time the medium was used it was for some different purpose, with the seeking ("Query") and giving ("Help Given") of assistance combining to be the second most popular use of the lists (51 of the 187 postings). The kinds of assistance sought and offered ranged across the spectrum of topics listed in Table 2.

The posting of announcements was the next most frequent usage, taking the form of posting announcements for the information of the general list community, introducing oneself as a new subscriber, and redistributing items found on other lists or in other media.

The remaining categories of communicative purpose figure only marginally in the total week's postings. All three — banter, flames and Net administration — represent "noise" on the discussion lists which fall outside the primary purpose of idea exchange. "Banter" included the exchange of pleasantries and humour which might sometimes strike a chord of collective support on the list, but more often raises the hackles of other participants because of its trivial waste of time and online connection costs. Similarly, "flames" — those notes of abuse or personal criticism — use discussion list resources to conduct an assault upon someone which could easily have been addressed privately to their email accounts. Net administrative postings are in some cases necessary evils of the medium and in other cases public demonstrations of the ignorance of participants. Only 12 of the 187 postings fell into these three groups, a result that other list members might well find encouraging.

b. Qualitative analysis

Rheingold (1994: 12) names the three impacts CMC can make upon people's lives as the personal, the social and the political. He explains that at the personal level "CMC appeals to us as mortal organisms with certain intellectual, physical and emotional needs". While personal impacts of CMC are hinted at in the text of postings during the week under examination, a detailed study of impacts upon individuals would require a different research model from that adopted for this pilot study.

The data provided some examples of political exploitation of the medium. The union-initiated postings on Journet of the results of the Wire Service Guild's negotiations with employers was one example. Another was the posting on Stumedia of an excerpt from a book titled *Guide to Uncovering the Right on Campus*, edited by the author of the message. However, both examples were one-off postings which attracted no debate and gained no momentum. A study over a longer period would find superior examples, such as the email-generated groundswell of support during 1993 and 1994 for journalism programs in North America threatened with closure by their respective university

administrations. These came much closer to Rheingold's (1994: 14) notion of a "revitalised citizen-based democracy" and deserve a separate study devoted solely to their case.

The discussion here will centre on Rheingold's (1994: 13) notion of the social impact of CMC, founded upon a schema Rheingold himself borrowed from Smith (1992). Rheingold explains that the notion of "community" is premised upon a group's ownership of three kinds of "collective goods": "social network capital", "knowledge capital" and "communion".

Social network capital is the development of interpersonal contacts and relationships participants can gain through active membership of such discussion lists. It is impossible to gauge the actual scale of the social network which can be created and facilitated by CMC. A printout of the email addresses of all participants obtained from each list's administrator offers a large network of contacts which may be accessed individually. Similarly, private correspondence frequently continues between small groups and pairs of participants long after the debate has ended on the discussion list. Take, for example, this posting to Journet:

> Hello. I'm a graduate student at the University of Missouri. I have a friend from Warsaw, Poland who is attending school here. He would like to send email to people in Poland, but he doesn't know of any addresses to send to. He is fascinated by the email thing, and he would like to stay in touch with everyone back here in the USA when he goes home. If anyone can help him please send him an email. [*Name and address follows.*]

Clearly, the social network capital of CMC is seen as vital to the student on his return to Poland. Similarly, on Stumedia a Texan subscriber sought to develop a network of contacts in his home state.

While these are blatant illustrations of the operation of such social network capital, a more subtle example is the "News Idea" exchange developed on Stumedia. During the week under examination, 12 ideas for news stories were posted to the list as part of a co-operative story generation program developed by a member. For example, an Australian participant shared her story idea about youth suicide. A fellow participant in Canada followed up on the story idea with a series of answers to frequently asked questions about suicide — obtained, coincidentally, from an Australian source on the Internet. The social network had extended from Australia to a United States-based discussion list to a Canadian member who happened to have accessed an Australian information source and shared this with the international body of subscribers including this author, also based in Australia.

The example also serves to introduce the second of Rheingold's "collective goods" — knowledge capital. As well as representing a development of contacts and relationships, the suicide news idea depicted an exchange of information which was perceived as potentially useful to the members of the list. Rheingold (1994: 13) argues that knowledge capital is to be found when members ask questions of the community "as an online brain trust representing a highly varied accumulation of expertise". The content analysis above indicates the high value that participants on Journet and Stumedia place on the information sharing capabilities of the lists. Many of the examples of the exchange of "knowledge capital" during the week in focus were to do with software for publishing and learning.

Typically, a member would post to the list with a dilemma and ask for advice. For example, one participant explained he had the opportunity to equip a new lab for journalism and advertising students. He sought advice on hardware and software, particularly a comparison of Quark Express and PageMaker programs. There was an immediate response on the virtues of Quark from a newspaper systems manager. Another participant then shared her expertise on the respective merits of the two pagination programs, including her experience with the software manufacturers' customer service departments, the relative cost of the programs, and their "journalism-friendliness". Similar exchanges took place on other equipment-oriented topics. Amidst the wealth of information exchange, one participant bemoaned the fact that email users did not use the headline writing skills most had practised as journalists:

> I've been on CARR-L, Journet and SPJ-Online for several months now--and I have no idea what half of the postings are about when I scan the subjects in my mail reader. When I got my journalism degree at the Univ. of Illinois in 1969, they were still teaching headline writing. Is that a lost art, known only to New York tabloids editors? With mail from three lists, I assume I'm like most of you and hit the delete key without reading most postings. I certainly don't read those that tell me next to nothing in the header.
> As the New York Post might have put it in the 1970's (or was it the Daily News?):
> Ford to New York: Learn to Write E-Mail Heads!

The humorous note had a serious message to it. Whether or not the information posted to the list is useful to its members is a point often debated over the Net. During the course of the week a lengthy debate ensued over the "spamming" (posting to multiple discussion lists) of a missing person notice describing two children abducted from South Carolina in a car-jacking. Participants were keen to minimise the amount of "junk mail" crossing their computer screens.

The third of Rheingold's "collective goods" evidence of community is the notion of "communion" — the act of sharing or holding in common. Rheingold (1994: 3) used as an example of such communion the supportive messages sent to a couple in an electronic Parenting conference whose son had been diagnosed with leukemia. This type of bonding extends to a much more emotional and spiritual level than mere social networking. Such "communion" occurred once during the week under review; when the Stumedia list owner Kenny Pate had been injured in a car accident. The 330 members of the list heard of his fate in this brief message from the list co-owner:

> In case you are wondering where Kenny is, he had a rather nasty automobile accident on Wednesday, totalling his car and breaking his sternum. He is going to be fine, but he is in quite a bit of pain, and hence, unable to come in to work and access the computer. However, drop him a note at his personal address to let him know you are thinking about him: kpate@vprua.vprua.uab.edu. I am sure he would appreciate it. He is still planning to go to New Orleans. I think he plans to use the alcohol for medicinal purposes. Until he is back on his feet, however, I will be handling the list and any problems that arise.

The posting prompted a number of public responses to the list and private get well messages to Pate himself, to which the list owner rallied with this stoic response from his sick bed:

> Subject: I'm baaack... (actually, I'm on my back)
> From: Kenny Pate <KPATE@VPRUA.VPRUA.UAB.EDU>
> Hi there.
> I'd like to thank everyone who sent me a get well note.
> I didn't expect that kind of response, and I guess I'm a little floored by it. Thank you.
> I'd tell you about the wreck, but I'm finding it fairly difficult to think clearly while I'm on these drugs.
> Anyway, I'll be in New Orleans one way or another.
> Kenny

Clearly, this is as close as we might get to Rheingold's notion of communion; evidence of genuine empathy and bonding between electronic correspondents who may never meet face to face.

Conclusion

This exploratory study of just one week's postings to two lists indicates a field of data ripe for research in a variety of ways. Important issues arise which could not be addressed in this study. They include:

- Why is there such a low participation rate at any time?
- What is the role of the "lurker"?
- What is the "life cycle" of a discussion list community?
- How does the community "gel"?

• Can it meet the discussion needs and interests of both newbies and veteran participants?

• How much time does active participation absorb?

• What are the views of participants on its usefulness?

Such questions could be addressed in future studies using a range of methodologies.

The discussion list as a form of CMC offers several points of difference as a telelogic medium, noted by Ogan (1993, Spring: 192-3), including: providing a specialised medium for its members; being an arena for group decision making and allowing for new uses such as the personalised data bases. Ogan mentions two other points of difference which are worth elaboration and qualification. Firstly, she proposes that the discussion list she studied "connected people to one another in a new social community defined around the interests of its members and not their physical proximity" (Ogan, 1993, Spring: 192). If one accepts Rheingold's definition of "community" (and, no doubt, some will not) then it follows that the discussion lists under examination certainly possess it. Yet the physical proximity of participants still seemed to have considerable influence. Some of the messages and discussions, such as the organising of the New Orleans convention on Stumedia, were US-centric to the exclusion of international participants. This phenomenon encourages groups of members to form splinter discussion lists based around either sub-topics or locations. One such group was formed to discuss visual communication. Another offshoot was created for Australasian journalism educators: JEANet. This may of itself be an encouraging sign of the cultural internationalisation of the Internet. Cunningham and Finn (1996: 88) comment that "while Net culture bears unmistakable signs everywhere of its birth in the US and the extensive dominance of US users, there is also a powerful and practical sense of Net interactions that are growing more global rapidly".

A relevant factor here may be the time difference between different regions of the United States and the rest of the world. While the communication may be virtually instant over the Net, many participants are not reading messages until they arrive for work the next day, often several hours after a message has been posted. (Some participants subscribe to the listservs as a "digest", choosing to have all the messages for a particular day sent as a package once per day.) Whether by choice or not, this may leave them well behind the debate, perhaps too late to make a worthwhile contribution. This might explain in part the low level of involvement of non-US members of the two lists.

The second of Ogan's points worth further attention is her contention that CMC "did not conform to traditional ways of confirming participant status" (1993, Spring: 193). To an extent that is true, with the age and social status of the participants rarely mentioned and body language and voice tone indicators absent. However, gender is usually discernible in the name of the participant and ethnicity, while not apparent unless mentioned by the participant, is open to conjecture based upon the name, country of origin or institution of origin of the member. Participants also make attempts at replicating face-to-face communication by using textual graphics and codes to indicate humour or emotion. The sideways smiling face :-) ; the frown :-(; and the wink ;-) positioned strategically within text are examples. Technological developments in the incorporation of audio-visuals will undoubtedly bridge this gap further.

Discussion lists have the scope to offer a level of currency in the international scholarly community well beyond the limits of other information sources for journalism educators and students such as newsletters, conferences and journals which might be weeks or even years behind in the intellectual debate or the technological development. Using a discussion list or direct email to a target member an educator or student can glean first-hand expert information within hours, perhaps even minutes.

Nevertheless, potential disadvantages may limit the value of CMC to educators and students. Firstly, the sheer bulk of correspondence over the period (46,840 words in text alone, plus many more in administrative notations) would be prohibitive to some, particularly those who already know the answers to many of the questions being asked and who have already resolved the dilemmas being debated. Secondly, any community — "virtual" or actual — must rely upon a minimum level of participation on the part of its membership. The notably low participation rates on the two lists prompt questions about whether they have ebbed below a critical mass required for fruitful ongoing discussion. Thirdly, the dominance of discussions by both male and US participants may cause concern, particularly to those journalists and educators who are female or who do not share the common US perception of the socio-political role of journalism. Fourthly, the relatively high usage of the lists for announcements (sometimes quite lengthy) evokes visions of a junk medium similar to the traffic in facsimile press releases which has become the bane of almost every newsroom. Fifth, reading and participating in such discussion lists takes time which might previously have been spent on other tasks.

The field deserves a comprehensive time and motion study of discussion list participants to help evaluate the worth of the medium.

Journalism educators and students might weigh these potential pitfalls against the demonstrated benefits of membership of such lists: Rheingold's lauded personal, social and political impacts including the social networks, knowledge base and communion of the virtual community; the scope for journalistic and scholarly co-operation with distant colleagues; and the opportunity to keep pace with the speed of innovation in an ongoing electronic idea-mart. The decision on whether to participate is indicative of the dilemma facing us all in an age of technological innovation and information overload.

Postscript: Usefulness of discussion lists as data for qualitative research

A secondary purpose of this paper was to consider the suitability of listserv discussions as data for a qualitative researcher investigating journalists' perceptions of the impact of the Internet upon journalism. (The author is in the process of planning such a major project.) Some researchers have already drawn upon discussions during computer-mediated communication as data for qualitative projects (Smith, 1992; Reid, 1991).

Miles and Huberman (1994: 27) note that qualitative research is usually concerned with small samples of people "nested in their context, and studied in-depth" and that qualitative samples tend to be "*purposive*, rather than random". This is because researchers are working with a relatively narrow definition of their universe (in this case, journalism faculty and students participating in electronic discussions) and also because random sampling would render confusing the social and intellectual phenomena under analysis, which are themselves inherently logical and coherent.

Marshall and Rossman (1991: 54) list four characteristics of the "ideal site" for qualitative study:

1. Entry is possible.
2. There is a high probability that a rich mix of many of the processes, people, programs, interactions, and/or structures that may be a part of the research question will be present.
3. The researcher can devise an appropriate role to maintain continuity of presence for as long as necessary; and
4. Data quality and credibility are reasonably assured by avoiding poor sampling decisions.

Interestingly, discussion lists go close to meeting these "ideal site" criteria if the data is pertinent to the research topic. Of course, an important decision would be the selection of the most appropriate listservs for the proposed study. Entry is certainly possible; the mix of interactions (conversations) required of

this kind of research question will be present; as a "virtual" site there is no problem with the researcher maintaining an appropriate role; and sampling decisions are relatively straightforward as they are restricted to discussions relating to the impact of the Internet upon journalism practice. (Of course this final criterion depends upon the researcher's judgment and insight.) The selection of the discussion list as a research site is not dissimilar to the interviewing of elites as described by Marshall and Rossman (1991: 94-95); an acceptable research strategy in appropriate circumstances. If discussion lists were selected as the primary source of data, the actual sampling process within the discussion lists selected would be primarily a matter of data reduction. The first and major sampling decision would be the selection of participants' discussions related to the impact of technology upon journalism practice. Further sampling decisions may be necessary during the project, depending on the quantity of material captured through this primary selection process.

Access is gained simply through the registration in one of the discussion lists, with no explicit conditions attached. Certain unstated conditions apply as dictated by the concept of "Netiquette" - the code of conduct on the Internet. Each of the discussion list administrators posts an electronic introductory text upon registration, featuring basic guidelines on correspondence to the list. This does not affect access to others' correspondence.

Use of discussion list conversations as data has similarities to other common sources of data for qualitative researchers. Certainly this technique can be seen as document analysis, in that it presents itself in a textual form. To an extent, it is also a form of "participant observation" because it is observing the on-line behaviour of the discussion list participants in their interactions with each other and their responses to each other's comments. It could also be seen as a form of interviewing, in that the responses to each other's comments elicit heartfelt contributions from participants on a particular topic. Certainly, follow-up interviews could be conducted with participants at some later stage in the project. Finally, the technique is unobtrusive; so unobtrusive, in fact, that it raises several ethical issues which are beyond the scope of this paper but require serious examination. They include issues related to consent, deception, privacy, harm, identification, confidentiality, publication and reciprocity.

Qualitative research projects often present difficulties to researchers who want to return to the site in which they conducted a pilot study. The "virtual" research site of the discussion list presents no

difficulties to the researcher who has already conducted a pilot study. Just as a pilot study on the letters featured in a metropolitan daily newspaper would not affect the capacity to conduct primary study on the same topic, an exploratory study of a discussion list does not stand to impact upon the larger project. If, however, it is deemed necessary to interview some of the participants during the project these issues will need to be revisited.

The discussion lists as "sites" can be compared with the staff common rooms in large institutions representing workers of the kind participating in the discussions. The Online News list approximates a common room where those publishing and working on electronic news publications come and go and conduct conversations among themselves while in the common room. The CARR-L list can be compared with a staff room frequented by mainstream journalists using computer aided research methods. The Journet list consists mainly of journalism educators discussing issues common to them. The SPJ-online list is a gathering of both journalists and educators.

It seems that discussion lists, despite the shortcomings which have surfaced during this pilot study, would be a worthwhile source of data for a qualitative study of journalists' perceptions of the impact of the Internet upon their work.

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